

Claims

1. An audio system, comprising:
 - a first unit, comprising:
 - a radio frequency (RF) front-end including an input coupled to a first antenna and an output, the input of the RF front-end receiving a radio signal provided by the first antenna;
 - a channel decoder including an input and an output, wherein the input of the channel decoder is coupled to the output of the RF front-end;
 - a first wireless interface including an input coupled to an output of the channel decoder and a first port coupled to a second antenna, the first wireless interface further including a second output;
 - a content decoder including an input and an output, wherein the input of the content decoder is coupled to the second output of the first wireless interface; and
 - a digital-to-analog converter (DAC) including an input and an output, wherein the input of the DAC is coupled to the output of the content decoder and the output of the DAC provides an analog audio signal; and
 - a second unit, comprising:
 - a second wireless interface including a second port coupled to a third antenna, an output and a signal input, wherein the second wireless interface is configured to communicate with the first wireless interface;
 - a source decoder including an input and an output, wherein the input of the source decoder is coupled to the output of the second wireless interface; and
 - a content encoder including an input and an output, wherein the input of the content encoder is coupled to the output of the source

decoder and the output of the content encoder is coupled to a signal input of the second wireless interface.

2. The system of claim 1, wherein the first and second wireless interfaces implement a BLUETOOTH protocol.

3. The system of claim 1, wherein the content encoder is an MP3 encoder and the content decoder is an MP3 decoder.

4. The system of claim 1, wherein the first and second units provide a satellite digital audio receiver.

5. The system of claim 1, wherein the second unit is portable.

6. The system of claim 1, wherein the first unit is installed within one of a motor vehicle and a home stereo system.

7. The system of claim 1, further comprising:
a processor coupled to and communicating with the RF front-end, the channel decoder and the first wireless interface.

8. The system of claim 7, wherein the processor communicates with the RF front-end, the channel decoder and the first wireless interface over an inter-integrated circuit bus.

9. The system of claim 1, wherein the second wireless interface communicates with the source decoder over an inter-integrated circuit bus.

10. A satellite digital audio receiver system, comprising:

a first unit, comprising:

a radio frequency (RF) front-end including an input coupled to a first antenna and an output, the input of the RF front-end receiving a radio signal provided by the first antenna;

a channel decoder including an input and an output, wherein the input of the channel decoder is coupled to the output of the RF front-end;

a first wireless interface including an input coupled to an output of the channel decoder and a first port coupled to a second antenna, the first wireless interface further including a second output;

an MP3 decoder including an input and an output, wherein the input of the MP3 decoder is coupled to the second output of the first wireless interface; and

a digital-to-analog converter (DAC) including an input and an output, wherein the input of the DAC is coupled to the output of the MP3 decoder and the output of the DAC provides an analog audio signal; and

a second unit, comprising:

a second wireless interface including a second port coupled to a third antenna, an output and a signal input, wherein the second wireless interface is configured to communicate with the first wireless interface;

a source decoder including an input and an output, wherein the input of the source decoder is coupled to the output of the second wireless interface; and

an MP3 encoder including an input and an output, wherein the input of the MP3 encoder is coupled to the output of the source decoder and the output of the MP3 encoder is coupled to a signal input of the second wireless interface.

11. The system of claim 10, wherein the first and second wireless interfaces implement a BLUETOOTH protocol.

12. The system of claim 10, wherein the second unit is portable and the first unit is installed within one of a motor vehicle and a home stereo system.

13. The system of claim 10, further comprising:
a processor coupled to and communicating with the RF front-end, the channel decoder and the first wireless interface.

14. The system of claim 14, wherein the processor communicates with the RF front-end, the channel decoder and the first wireless interface over an inter-integrated circuit bus.

15. The system of claim 10, wherein the second wireless interface communicates with the source decoder over an inter-integrated circuit bus.

16. An audio receiver unit, comprising:
a radio frequency (RF) front-end including an input coupled to a first antenna and an output, the input of the RF front-end receiving a radio signal provided by the first antenna;
a channel decoder including an input and an output, wherein the input of the channel decoder is coupled to the output of the RF front-end;
a first wireless interface including an input coupled to an output of the channel decoder and a first port coupled to a second antenna, the first wireless interface further including a second output;
a content decoder including an input and an output, wherein the input of the content decoder is coupled to the second output of the first wireless interface; and

a digital-to-analog converter (DAC) including an input and an output, wherein the input of the DAC is coupled to the output of the content decoder and the output of the DAC provides an analog audio signal.

17. The unit of claim 16, wherein the wireless interface implements a BLUETOOTH protocol.

18. The unit of claim 16, wherein the content decoder is an MP3 decoder.

19. An audio receiver unit, comprising:
a wireless interface including a port coupled to an antenna, an output and a signal input;
a source decoder including an input and an output, wherein the input of the source decoder is coupled to the output of the wireless interface; and
a content encoder including an input and an output, wherein the input of the content encoder is coupled to the output of the source decoder and the output of the content encoder is coupled to a signal input of the second wireless interface.

20. The unit of claim 19, wherein the wireless interface implements a BLUETOOTH protocol.

21. The unit of claim 19, wherein the content encoder is an MP3 encoder.

22. The unit of claim 19, further including:
a human-machine interface (HMI) coupled to the source decoder, wherein the HMI is configured to allow an operator to change to a desired channel; and

a digital-to-analog converter (DAC) coupled to the output of the source decoder, the DAC converting a digital audio signal associated with the desired channel to an analog audio signal for playback.